UPDATE

SCDHEC Environmental Laboratory Certification

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OOPS!

Annual Certification Fees Not Yet Due

Your facility recently received information regarding environmental laboratory certification fees for the coming fiscal year 2000 (July 1, 1999 to June 30, 2000). This correspondence was sent as advice of what you should expect to pay regarding fees. The correspondence may/may not have included a letter of instruction (Laboratory Certification Fact Sheet) explaining that no payment was due until the actual invoice was received. **The invoice which must be paid will be mailed to all certified laboratories during the latter part of July.** Due to an administrative error within the Finance Department, not all laboratories received the Fact Sheet.

Unfortunately, the Environmental Quality Control system will not allow receipt of payment before an invoice is generated. Therefore, it will be necessary to return checks if they are received before invoicing. When you receive the invoice in July, payment of fees is due. We apologize for any confusion or inconvenience this may have caused.

Annual Certification Fees Are Not Pro-rated

We always like to inform laboratories applying for certification this time of year that, because our annual certification fees are not pro-rated, they must pay fees for the 1999 fiscal year if they become certified for the requested parameters before June 30, 1999. The laboratory will be charged again on July 1, 1999 for the 2000 fiscal year. This takes some laboratories by surprise. However, we offer the option of holding certification until July 1, at the laboratory=s request, to avoid the extra fees. Please consider this when submitting applications for either initial certification or the certification of additional parameters.

Pollution Prevention in the Laboratory

Resources Available

The EPA Office of Pollution Prevention and Toxics has a program which specifically targets environmental laboratories. This program, Design for the Environment, assists environmental laboratories in reducing wastes and pollution. Technical assistance and educational materials are available. To learn more, contact Bernie Hayes at (404)562-9430.

NIST-Traceable Thermometers

Are They Really Traceable?

Several companies are producing and marketing small, inexpensive digital thermometers as being ANIST-traceable@. Many of these sell for less than twenty dollars. While each brand should be evaluated individually, some brands do not meet the specifications of being NIST-traceable. Before your laboratory purchases a NIST-traceable thermometer, check it out by calling the manufacturer, by calling our Office, or by calling NIST directly at (301)975-4822. Please note that NIST and NIST-traceable thermometers must undergo rigorous testing, and this can cause the price to be substantial.

Microbiological Analyses

Microbiological Wastes - Autoclaving Is The Answer

It is not acceptable to disinfect microbiological samples and contaminated equipment by adding chlorine bleach to the samples or by soaking the equipment in a bleach solution. Samples and contaminated equipment would have a high chlorine demand, and the addition of chlorine bleach would reduce the levels of microorganisms at best, but it would not sterilize the samples. Also, the use of chlorine would produce chloramines. The intent is to reduce the level of chloramines in the environment because they are toxic to aquatic life and may be carcinogenic. In addition, it would be difficult to determine the contact time needed since each batch of contaminated materials would have a different chlorine demand. Furthermore, the practice of adding excessive amounts of chlorine bleach to the sewer system might violate state or local laws.

The best and only alternative acceptable to our Office is for all contaminated microbiological materials and samples to be sterilized by autoclaving for at least 30 minutes at 121E C. The sterilization of each batch of microbiological waste must be documented in the sterilization and/or autoclave records.

Colilert Quality Control - New Requirement

Laboratories certified to use Colilert to determine the presence/absence or enumeration of total coliforms and *E. coli* must perform three quality control tests on each new lot of Colilert medium used. A positive control sample using an organism (such as *E. coli)* which will produce a yellow color and fluorescence, a negative control sample using an organism (such as *Pseudomonas aeruginosa)* which will not produce a color change or fluorescence in the sample, and a control sample using an organism (such as *Klebsiella pneumoniae*) which will produce a color change but will not produce fluorescence in the sample must be analyzed. Documentation of these quality control checks must be maintained by the laboratory. Many laboratories are performing the positive and negative control checks, but they are omitting the check using *Klebsiella pneumoniae*. If your laboratory has not been performing all three checks, please incorporate this into your procedures.

Inhibitory Residue Test No Longer Required

All laboratories must use laboratory grade detergents which contain no phosphates and follow washing and rinsing procedures when cleaning glassware and plasticware used in any aspect of microbiological testing. The requirement of performing the inhibitory residue test dates back to when detergents contained phosphates. Because this is no longer a concern, it is only strongly recommended that laboratories continue to perform inhibitory residue tests with the detergents in use. It is not a requirement. It is the laboratory-s responsibility to maintain its laboratory grade detergent in good condition and to practice good washing/rinsing procedures. Caked or discolored detergent must not be used.

Comments Are Appreciated

At any time, our Office will accept comments, suggestions, information, critiques, etc. related to our purpose - what we do and how we do it. For those of you who are hesitant to reveal yourselves, we will accept relevant anonymous comments. Your input is important!

National Environmental Laboratory Accreditation Conference (NELAC)

Fifth Annual Meeting To Be Held

NELAC will hold its fifth annual meeting June 28 through July 1, 1999. The meeting will be held in the Sheraton Hotel and Conference Center in Saratoga Springs, NY. For more information, contact the New York State Environmental Laboratory Approval Program (ELAP) at (518)485-5570.

Internet Services

New Email Address For The MICE Service

The Methods Information Communication Exchange (the MICE service) has a new e-mail

address. The role of the MICE service is to provide answers and take comments regarding the Office of Solid Waste (OSW) methods manual known as the ATest Methods for Evaluation Solid Waste: Physical/Chemical Methods (SW-846)@. The new email address is **mice@cpmx.saic.com**, and the web site can be viewed at **http://www.epa.gov/sw-846/mice.htm**. For those of you without access to the internet, the MICE service can also be reached by phone at (703)821-4690 and by fax at (703)698-6101.

The MICE service is operated by Science Applications International Corporation (SAIC) under contract to the USEPA Office of Solid Waste.

Automatic Notification of Federal Register Updates

The EPA will notify all people who subscribe to its ListServe service with updates of the Federal Register via email on a daily basis. To subscribe, email **listserver@unixmail.rtpnc.epa.gov**. Leave the subject line blank, or put a period in the subject area. Next, type the following in the four blanks separated by a space in the body of the message:

1. ASubscribe@ is an absolute. This must be included in the first space.
2. The name of the ListServe in which you wish to participate (see below) in the second space.
3. Your first name or initial in the third space.
4. Your last name in the fourth space.

Example: subscribe EPA-WATER2 John Smith

Do not include any other information in the email or it might be rejected. The EPA offers several ListServe subscriptions. For example, the EPA-WATER2 ListServe provides updates from the Office of Water, while the ListServe EPA-WASTE2 ListServe provides updates about hazardous and solid waste documents. The confirmation of your subscription will provide you with details and additional ListServe options.

NELAC Information

Proposed changes to the current NELAC standards and the constitution and bylaws are available through the NELAC Home Page on the World Wide Web. Look up **http://www.epa.gov/ttn/nelac**.

Toxicity Workshop Announced

Mark Your Calendars For August 19, 1999

A workshop on toxicity will be sponsored by the Laboratory Committee of the Water Environment Association of South Carolina (WEASC). The workshop will include discussion on the Toxic Control Strategy Document and other toxicity issues. Speakers will include representatives from the EPA and the SCDHEC. The workshop is scheduled for August 19, 1999 and will be held in Columbia, South Carolina at the Sheraton located on Bush River Road at I-26. Information on the workshop will be sent to all members of the WEASC in July, and information can also be obtained by calling Linda Frye of the WEASC at (803)540-1888. Please mark your calendars for this informative workshop.

Documentation for pH Analyses

Clarification and Revision of Requirements

Our Office has been requiring laboratories to document the buffer temperatures during calibrations and the sample temperatures during analyses. This requirement arose because many

small field laboratories store their buffers and equipment in outbuildings or vehicles which have no heating or air conditioning. The buffers and equipment are subjected to a wide range of temperature fluctuations during the day and during the seasons. This requirement seems unnecessary for facilities which maintain buffers and equipment in controlled environments. Therefore, the requirement has been revised as stated below.

- If the pH meter has ATC capabilities which are utilized *and* the buffers and equipment are stored in a controlled environment, the temperature **does not** have to be documented.
- If the pH meter and buffers are stored in an area without a controlled environment (i.e. no stable temperatures), the temperatures **must** be documented.
- If the pH meter does not have ATC capabilities but has to be adjusted for temperature, the temperature **must** be documented. In these cases, the temperature is usually determined using a thermometer independent of the meter.

Keep Us Informed

Laboratory Changes Are Important

After each mailing of this newsletter and of other information distributed by this office, several items are returned because of an incorrect address, name change, new laboratory director, or a closing. Whatever the reason, this Office must be notified of all changes in key personnel, laboratory name, address, phone number, etc. Failure to do so may result in decertification. All notifications must be given in writing. Laboratories should include in the laboratory standard operating procedures manual a sheet providing the name, address, phone numbers, contact person(s), and function of this Office, along with a copy of the parameter list. A statement explaining when our Office should be contacted should be included.

Please note that any information submitted to this Office should include the laboratory=s five-digit laboratory identification number. This makes it much easier and faster for our administrative personnel to direct the information to the appropriate certification officer and process it.

Y2K Compliance

Laboratories should have already started work on making sure that their instrumentation and laboratory information management systems are Y2K compliant. Modifications to the instrumentation or software may be required for some laboratory equipment; whereas retirement of old equipment, hardware, software and replacement with Year 2000-compliant systems may be required for others. The laboratory should be talking with instrument manufacturers and internal IT (Information Technology) personnel to evaluate possible remedies to specific problems. The laboratory=s clients need to be aware of the steps taken by you to ensure Y2K compliance.

If the laboratory is not able to meet the requirements to ensure Y2K compliance with all laboratory procedures, then a plan needs to be developed to document the steps to be taken by the laboratory along with the length time required to become compliant. These plans must be forwarded to this Office for review.

PE Studies Program Update

Water Pollution (WP) and Water Supply (WS) Studies

We have recently learned that the NIST approvers who are to evaluate performance testing sample providers have completed training and will start approving sample providers soon. As part of the approval process, the sample providers must also submit samples to NIST for evaluation. We expect this process to take several more months. Our Office will notify all participating

laboratories of instructions regarding participation in the Water Pollution and Water Supply studies as soon as we receive them.

Discharge Monitoring Report - Quality Assurance Study #19

As many of you know, the Discharge Monitoring Report - Quality Assurance (DMR-QA) study is required for all permittees designated as major dischargers or significant minor dischargers by EPA. With the impending analysis and reporting changes in 1999, our Office contacted Mr. Paul Britton, EPA Proficiency Testing (PT) Coordinator, to find out how the DMR-QA study will be handled. Listed below is the tentative information that we received which is subject to change.

1. DMR-QA participants (permittees) will receive their announcement letter for DMR-QA study #19 in April or May 1999. This announcement letter will include instructions for ordering samples, deadlines, and other information. It will also include a copy of pages 3 and 4 of the previously used orange reporting form. Pages 3 and 4 will request information about the permittee (NPDES number, EPA Labcode, address, contact person, etc.) and any other laboratory that will be reporting data to the permittee (industrial, contract/commercial, municipality, etc.).
2. The PT provider list should be available by June 1999 from the NIST website before the actual hardcopy list is distributed. All permittees should have some access to the Internet and must obtain this information for sample ordering. EPA does not plan to mail the hardcopy list until later. (NOTE: After our Office received this announcement, we learned that the PT provider list would not be available after until after June 1999).
3. Permittees and contract/commercial laboratories must order their chemistry samples from one of the approved PT providers and their toxicity sample from EPA.
4. Permittees must report results on the forms provided by the PT provider. EPA cannot dictate to PT providers how the reporting forms are going to look (color, font, style). EPA cannot guarantee similarity between what has been used in the past and what will be provided. Previous color schemes are obsolete.
5. Permittees must attach a copy of the completed pages 3 and 4 to each set of results sent to the PT providers used.
6. Contract/commercial laboratories must send each permittee a copy of their completed reporting form.
7. Permittees must attach a copy of their reporting form, a copy of the contract/commercial laboratory reporting form and the completed copy of pages 3 and 4 to create a package of four sheets. This package must then be mailed to:
   a) the PT provider used by the permittee
   b) the PT provider used by the facility=s contract/commercial laboratory, and
   c) the EPA
8. It will be the PT providers= responsibility to send all results to the permittee, state agency, and EPA.
9. It will be the responsibility of the state coordinator to put all this information together, determine if the permittees have met their PE requirement, and request follow-up actions as needed.

Holding Times - Unacceptable Interpretation of Requirements

It has come to our attention that there is a different interpretation of holding times that has surfaced in the environmental laboratories. This interpretation is not accepted for regulatory reporting in South Carolina. We are not sure how this interpretation originated, but we did want to address this issue, since it has recently been brought to our attention and is unacceptable.

The following interpretation is incorrect.

If the holding time requirement is expressed in days, then the holding time in the laboratory is calculated in calendar days from the day of sample collection. If the holding time requirement is expressed in hours, then the holding time in the laboratory is calculated in hours from the day and time of sample collection. For example, samples with a 14 day holding time and which were collected on 4/1/99 are within holding time if analyzed anytime before the end of the 14th day from sample collection or midnight on 4/15/99. Samples with a 48-hour holding time which were collected on 4/1/99 at 2:05 PM are within holding time if analyzed anytime before the end of the 48th hour or 3:00 PM on 4/3/99.

The interpretation below is correct and is what our Office requires.

The **day and time** of sample collection must always be taken into consideration when meeting the required holding times. If the holding time is expressed in days, each day is considered to be a 24 hour period. For example, if a sample has a seven-day holding time and it is collected at 8:00 AM on Day 0, the holding time expires at 8:00 AM on Day 7. If the sample is analyzed any time past this expiration, it is considered invalid. If the holding time is expressed in hours, then complete hours starting at the time of sample collection are considered. For example, if a sample has a 48-hour holding time and it is collected at 8:30 AM on Wednesday, its holding time will expire at 8:30 AM on Friday. If the sample is analyzed at any time past this expiration, it is considered invalid.

Samples should be analyzed as soon as possible after sample collection. To verify that the holding times for samples have not been exceeded, the day and time of collection and the day and time of sample analysis must be documented for all samples. Because many factors can affect the stability of samples, some may not be stable for the maximum period specified in regulation. The times listed in regulation are the maximum times that samples may be held before analysis and still be considered valid.

Oil and Grease Method 1664 Now EPA-Approved

The Federal Register, 40 CFR Parts 136 and 260, AGuidelines Establishing Test Procedures for the Analysis of Oil and Grease and Non-Polar Material Under the Clean Water Act and Resource Conversation and Recovery Act; Final Rule@, May 14, 1999, pages 26315-26327, announced the approval of EPA method 1664, Revision A, for the analysis of samples for oil and grease under the Clean Water Act programs. This final rule also deletes Method 9070, adds revised Method 9071B, and incorporates Method 1664 by reference for use in EPA=s RCRA programs. For more information, consult with the referenced **Federal Register** announcement. More about this method will be published in the next edition of this newsletter.

Statewide Laboratory Meeting Planned for July 28, 1999

The auditorium of the SC Department of Archives and History in Columbia has been reserved for July 28 for a meeting of all interested SC environmental laboratories. An update on the proceedings of the fifth national meeting of the NELAC will be given. The remainder of the session will be devoted to discussing options to ensure that formal input from the laboratory community is considered when the Department is mandated to implement changes to certification criteria. An agenda, when finalized, will be mailed to all certified laboratories.

Questions and Answers

Q: How long will it take to get my laboratory certified?

A: Depending on your perspective, this question either has no answer or many answers. The length of time it takes an application for certification to be processed and the laboratory to be certified depends on many factors. A few of these are:

- quality, organization and completeness of the application
- the number and types of parameters requested
- the workload of the certification officer when the application is received
- how quickly the laboratory corrects and responds to deficiencies noted in the application
- scheduling of the on-site evaluation
- condition of the laboratory during the on-site, and
- how quickly additional deficiencies are corrected.

Remember, you as the applicant actually are the biggest factor in the time it takes to get certified. Our certification officers have had short turnaround times for big laboratories while laboratories requesting only field parameters (pH, dissolved oxygen) have taken months because of deficiencies in the application or with the laboratory itself. It makes certification easier for both our certification officers and the laboratories if applications are complete and organized and if all required information is submitted. We provide checklists with the application for the applicant to use to make this process easier. Feel free to call us at any time to clarify what information must be submitted with the application.

Q: Does a laboratory have certification to analyze my sample?

A: We often get calls from potential clients of laboratories asking for verification that a particular laboratory is certified. The answer is not simply Ayes@ or Ano@. It is a good idea to contact our Office, but be sure to ask the correct questions. Certification is dynamic. Laboratories are constantly adding and deleting (for various reasons) parameters to their certification. The question AIs this laboratory certified?@ will not give the potential client all the information it needs.

Our Office certifies laboratories based upon the program area to which the data generated will be reported. Certifiable parameters fall into three program areas: the Safe Drinking Water Act, the Clean Water Act (waste water), and Solid and Hazardous Waste. The certification for a particular parameter must be under the appropriate program area. For example, if a laboratory is certified to perform residual chlorine analysis on drinking water samples (Safe Drinking Water Act program area) and is not certified to analyze waste water (Clean Water Act program area) samples for residual chlorine, it cannot report residual chlorine results for waste water samples (e.g. NPDES permit compliance samples of waste water effluent). Some permits (e.g. NPDES) specify the parameter method, so it might be necessary to verify this also. Any Laboratory Certification Officer will be happy to check this information for you.